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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,685	11/25/2003	Floyd Ysbrand	3462-46	3062
23117	7590	03/25/2005	EXAMINER	
NIXON & VANDERHYE, PC 1100 N GLEBE ROAD 8TH FLOOR ARLINGTON, VA 22201-4714			MAYO III, WILLIAM H	
			ART UNIT	PAPER NUMBER
			2831	

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/720,685

Applicant(s)

YSBRAND, FLOYD

Examiner

William H. Mayo III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-7,9,10,12-15,24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-7,9,10,12-15,24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings were received on January 4, 2005. These drawings are approved.

Claim Objections

2. Claim 25 is objected to because of the following informalities: In claim 25, line 8, replace the terms "said insulation layers", with the term –said first and second insulation layers", to provide the claim with proper antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-6, 9, 12-15, and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujikura (JP Pat Num 51-11315) in view of Hale (Pat Num 3,474,186). Fujikura discloses that the coaxial cable (Figs 1-3) comprising a tape layer having a shield layer capable of exhibiting positive attenuation of and protection from electromagnetic and radio frequency interference. Specifically, with respect to claim 24, Fujikura discloses a tape layer (2-4) comprising a conductive layer (3) formed of metallic

powder dispersed in PTFE (abstract), an outer insulative layer (4) formed of PTFE disposed on and bonded to the outer surface of the conductive layer (3, i.e. heat bonded) and an inner insulation layer (2) formed of PTFE disposed on and bonded to the inner surface of the conductive layer (3, i.e. heat bonded). With respect to claim 2, Fujikura discloses that the inner conductive layer (3) may comprise substantially equal parts of metallic powder and PTFE (100 parts of PTFE to 100 parts of powder, Col 3, lines 1-5). With respect to claim 3, Fujikura discloses that the metallic powder may comprise copper, silver, aluminum, and mixtures thereof (Col 2, lines 20-26). With respect to claims 5-6, Fujikura discloses that the outer insulation layer (4) is coated with the inner conductive layer (3), wherein the inner conductive layer (3) is cured (i.e. heat treated, abstract). With respect to claim 12, Fujikura discloses that the inner conductive layer (3) may comprise substantially equal parts of metallic powder and PTFE (100 parts of PTFE to 100 parts of powder, Col 3, lines 1-5). With respect to claim 13, Fujikura discloses that the inner conductive layer (3) if formed by dispersing metallic powder in a PTFE solution, heating and curing (i.e. heat treated, abstract) the conductive layer (3) on the insulative layer (4). With respect to claim 14, Fujikura discloses that the metallic powder may comprise copper, silver, aluminum, and mixtures thereof (Col 2, lines 20-26). With respect to claim 25, Fujikura discloses a shielded electrical wire (Fig 1) comprising a insulated wire (1), a first insulation layer (2) formed of PTFE surrounding the wire (1) a conductive layer (3) formed of metallic powder dispersed in PTFE (abstract) capable of providing a positive attenuation of and protection from electromagnetic and radio frequency interference (structure is the same

as applicant's and therefore is capable of performing the same functions as applicant's claimed invention), and an outer insulative layer (4) formed of PTFE surrounding the outer surface of the conductive layer (3), wherein the conductive layer (3) and the first and second insulation layers (2 & 4, respectively) are formed of a tape having there layers bonded together (i.e. heat bonded) and cured on the wire (1).

However, Fujikura doesn't necessarily disclose the inner layer and the outer layers of the tape being offset laterally to expose the inner and outer lateral end portion of the inner conductive layer (claims 24-25), nor the tape being spirally wrapped around the electrical wire (claim 4), nor an adhesive with slipsheet layer being disposed on the inner surface of the inner insulation layer (claim 9), nor the tape comprising a second conductive layer surrounding the second insulation layer (claim 15), nor the conductor being insulated (claim 25).

Hale teaches a shielded cable (Figs 1-5) having a tape shield layer has a lower shield resistance and increase reliability and continuity (Col 2, lines 22-25). Specifically, with respect to claim 24-25, Hale teaches a shielded cable (Fig 1) having a tape layer (Fig 2) comprising an inner layer (24) and an outer layer (22), wherein the inner and outer layers (22 & 24) are offset to expose lateral end portions (30 & 46) of the inner conductive layer (22). With respect to claim 4, Hale teaches that the tape layer (20) may be helically wrapped on the insulated conductors (16 & 17, Col 3, lines 60-62). With respect to claim 9, Hale teaches that an adhesive layer (i.e. bonding medium) may be utilized on the inner surface of the insulating layer (24, Col 4, lines 14-16). With respect to claim 15, Hale teaches a shielded cable (Fig 1) having a tape layer (Fig 5)

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comprising an inner layer (24') and an outer layer (22'), wherein the inner and outer layers (22' & 24') and further comprising a second conductive layer (52) surrounding the inner insulation layer (22', Col 4, lines 1-26). With respect to claim 25, Hale teaches that the conductors (16 & 17) are insulated with an insulation material (18 & 19) prior to being wrapped by the tape layer (20, Col 3, lines 1-6).

With respect to claims 4, 9, 15, and 24-25, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the shielded wire of Fujikura to comprise the tape layer to have an offset configuration as taught by Hale because Hale teaches that such a configuration provides a tape shield layer has a lower shield resistance and increase reliability and continuity (Col 2, lines 22-25).

5. Claims 7 & 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujikura (JP Pat Num 51-11315) in view Hale (Pat Num 3,474,186, herein referred to as modified Fujikura), applied to claim 24 above, further in view of Johnson (Pat Num 5,214,243). Modified Fujikura discloses that the coaxial cable (Figs 1-3) comprising a tape layer having a shield layer capable of exhibiting positive attenuation of and protection from electromagnetic and radio frequency interference.

However, Fujikura doesn't necessarily disclose the inner conductive layer being formed by metallic powder disposed in PTFE dispersion or ink solution (claim 7 & 10).

Johnson teaches a shielded wire (Figs 1-2) comprising a tape layer that prevents buildup of local charges during mechanical separation from the shield thereby reducing triboelectric noise (Col 1, lines 5-15). Specifically, with respect to claims 7 & 10,

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Johnson teaches that the conductive inner layer (16) is formed by metallic powder being dispersed in the PTFE (Col 2, lines 33-50).

With respect to claims 10-11, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the shielded wire of Fujikura to comprise the helically wrapped configuration as taught by Johnson because Johnson teaches that such a configuration prevents buildup of local charges during mechanical separation from the shield thereby reducing triboelectric noise (Col 1, lines 5-15).

Response to Arguments

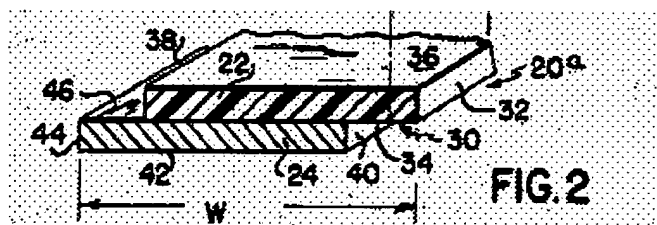
6. Applicant's arguments filed January 24, 2005 have been fully considered but they are not persuasive. The applicant argues the following:

- A) Fujikura doesn't specifically disclose the inner layer and the outer layers of the tape being offset laterally to expose the inner and outer lateral end portion of the inner conductive layer and therefore cannot anticipate or render the claimed invention obvious.
- B) There is no teaching of Johnson teaching a tape layer being the tape being offset laterally to expose the inner and outer lateral end portion of the inner conductive layer and therefore cannot anticipate or render the claimed invention obvious.
- C) Hale doesn't specifically disclose the inner layer and the outer layers of the tape being offset laterally to expose the inner and outer lateral end

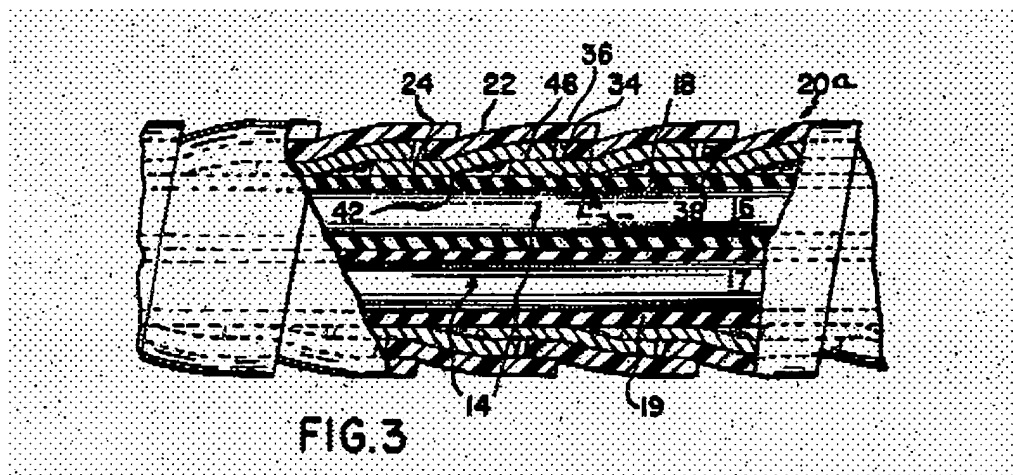
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portion of the inner conductive layer and therefore cannot anticipate or render the claimed invention obvious.

With respect to arguments A-C, the examiner respectfully traverses. The examiner has conceded that Fujikura doesn't specifically disclose the inner layer and the outer layers of the tape being offset laterally to expose the inner and outer lateral end portion of the inner conductive layer, however, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). However, the examiner has relied on the teaching of Hale because Hale teaches that such a offset configuration provides a tape shield layer has a lower shield resistance and increase reliability and continuity (Col 2, lines 22-25). Clearly, Hale does teach a tape layer that can be spirally wrapped and that has offset layers. Specifically, as shown in Figure 2,



Hale clearly discloses the conductive layer (24) being offset from insulation layer (22) so that when the cable is helically wrapped, the conductive layer (24) comes into contact with itself thereby resulting in a continuous shield layer and the insulation layer (22) comes into contact with itself, thereby resulting in a continuous outer protective jacket layer (Col 4, lines 8-16) as shown in Figure 3 below.



Therefore, based on the teaching of Hale, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the shielded wire of Fujikura to comprise the tape layer having an offset configuration as taught by Hale because Hale teaches that such a configuration provides a tape shield layer has a lower shield resistance and increase reliability and continuity (Col 2, lines 22-25). Secondly, it is stated that the Johnson reference is introduced for its teaching of a shielded wire (Figs 1-2) comprising a tape layer that prevents buildup of local charges during mechanical separation from the shield thereby reducing triboelectric noise (Col 1, lines 5-15), wherein the conductive inner layer (16) is formed by metallic powder being dispersed in the PTFE (Col 2, lines 33-50) and therefore doesn't have to teach the tape layer having offset layers. Specifically, the combination of Fujikura and Hale clearly teach all of the claim limitations of claims 24-25 and therefore Johnson doesn't have to suggest or teach the layers of the tape being offset.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Communication

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (571)-272-1978. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-2800 ext 31. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William H. Mayo III
Primary Examiner
Art Unit 2831

WHM III
March 17, 2005